



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,731	01/24/2002	Jim Janesick	50047050-0001.002	3160

26263 7590 02/25/2003

SONNENSCHN NATH & ROSENTHAL
P.O. BOX 061080
WACKER DRIVE STATION
CHICAGO, IL 60606-1080

EXAMINER

DICKEY, THOMAS L

ART UNIT	PAPER NUMBER
----------	--------------

2826

DATE MAILED: 02/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/057,731

Applicant(s)

JANESICK, JIM

Examiner

Thomas L Dickey

Art Unit

2826

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-71 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-71 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

Art Unit: 2826

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims **35-57**, drawn to a method, classified in class 438, subclass 438.
- II. Claims **1-34 and 58-71**, drawn to a device, classified in class 257, subclass 291.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case unpatentability of the Group II product invention would not necessarily imply unpatentability of the Group I process invention, because the product of the Group II invention could be made by a materially different process from that of the Group I invention. For example, the product of claim 1 could be made by a process that includes a step of fabricating

Art Unit: 2826

a photoreceptor with a readout gate having solid, uniform thickness throughout, a process materially different from the process of claim 43.

2. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

3. This application contains claims directed to the following patentably distinct species of the claimed invention: A first embodiment disclosed in figure 1 and page 5 line 19 through page 6 line 6, a second embodiment disclosed in figure 2 and page 6 line 7 through page 8 line 22, a third embodiment disclosed in page 9 lines 1-14, a fourth embodiment disclosed in figure 3 and page 9 line 15 through page 10 line 14, and a fifth embodiment disclosed in figures 4, 5, 6 and page 10 line 15 through page 10 line 14.

Note that while the first embodiment discloses combinations including the following elements or modes of operation:

Control circuitry; integration voltage; output amplifier; photoreceptor; photoreceptor readout clock; reset transistor; select transistor; sense node

The first embodiment does not disclose combinations including the following elements or modes of operation:

"snap" mode; readout gates less than 2000 Angstroms thick; readout gates less than 1000 Angstroms thick; readout gates less than 500 Ang-

Art Unit: 2826

stroms thick; alternate application of V+ level during an integration period and a V- level during a readout period; antireflective coating; doped transfer region; photodiode; photogate; photoreceptor readout gate; pinned aperture region; pinned transfer gate.

Note that while the second embodiment discloses combinations including the following elements or modes of operation:

alternate application of V+ level during an integration period and a V- level during a readout period; control circuitry; integration voltage; output amplifier; photodiode; photogate; photoreceptor; photoreceptor readout clock; photoreceptor readout gate; pinned transfer gate; reset transistor; select transistor; sense node

The second embodiment does not disclose combinations including the following elements or modes of operation:

"snap" mode; readout gates less than 2000 Angstroms thick; readout gates less than 1000 Angstroms thick; readout gates less than 500 Angstroms thick; antireflective coating; doped transfer region;

Note that while the third embodiment discloses combinations including the following elements or modes of operation:

"snap" mode; control circuitry; photoreceptor; photoreceptor readout clock; sense node

The third embodiment does not disclose combinations including the following elements or modes of operation:

readout gates less than 2000 Angstroms thick; readout gates less than 1000 Angstroms thick; readout gates less than 500 Angstroms thick; alternate application of V+ level during an integration period and a V- level during a readout period; antireflective coating; doped transfer region; integration voltage; output amplifier; photodiode; photogate; photoreceptor read-

Art Unit: 2826

out gate; pinned aperture region; pinned transfer gate; reset transistor; select transistor

Note that while the fourth embodiment discloses combinations including the following elements or modes of operation:

Photoreceptor; Photoreceptor readout clock; Photoreceptor readout gate; Pinned aperture region; pinned transfer gate; sense node

The fourth embodiment does not disclose combinations including the following elements or modes of operation:

"snap" mode; readout gates less than 2000 Angstroms thick; readout gates less than 1000 Angstroms thick; readout gates less than 500 Angstroms thick; alternate application of V+ level during an integration period and a V- level during a readout period; antireflective coating; control circuitry; doped transfer region; integration voltage; output amplifier; photodiode; photogate; reset transistor; select transistor

Note that while the fifth embodiment discloses combinations including the following elements or modes of operation:

"snap" mode; readout gates less than 1000 Angstroms thick; readout gates less than 2000 Angstroms thick; readout gates less than 500 Angstroms thick; antireflective coating; control circuitry; doped transfer region; integration voltage; output amplifier; photoreceptor; photoreceptor readout clock; photoreceptor readout gate; pinned aperture region; pinned transfer gate; reset transistor; sense node

The fifth embodiment does not disclose combinations including the following elements or modes of operation:

alternate application of V+ level during an integration period and a V- level during a readout period; photodiode; photogate; select transistor

Art Unit: 2826

4. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1 and 58 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

5. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Art Unit: 2826

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).


Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas L Dickey whose telephone number is 703-308-0980. The examiner can normally be reached on Mon-Thu 8-6, Mon-Fri 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J Flynn can be reached on 703-308-6601. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-0956.

TLD
02/03


Minh Loan Tran
Primary Examiner